

**REMARKS**

The application has been reviewed in light of the final Office Action dated October 29, 2008. Claims 1-22, 32 and 37-54 were pending in the application, with claims 1-22 having been withdrawn by the Patent Office from consideration. Claims 23-31 and 33-36 were previously canceled, without prejudice or disclaimer. By this Amendment, claims 32, 46 and 47 have been amended to clarify the claimed subject matter, and new claims 55-61 have been added. Accordingly, claims 32 and 37-61 are now pending and presented for continued examination, with claims 32 and 46 being in independent form.

Claims 32 and 37-45 were rejected under 35 U.S.C. §103(a) as purportedly unpatentable over Ohta (U.S. Patent No. 6,307,644) in view of Murakami et al. (U.S. Patent No. 5,930,388) and further in view of Asada (U.S. Patent No. 5,180,008) and further in view of Saito et al. (U.S. 2002/0021458 A1) and in further view of Kita (U.S. Patent No. 5,502,579). Claims 46-51, 53 and 54 were rejected under 35 U.S.C. §103(a) as purportedly unpatentable over Ohta in view of Saito and in further view of Kita. Claim 52 was rejected under 35 U.S.C. §103(a) as purportedly unpatentable over Ohta in view of Saito and Kita and further in view of Murakami.

The present application relates to improvements devised by applicant for conversion of a color signal into a color material signal in image processing.

In an aspect of the present application, a method for converting an input color signal into a color material signal comprises determining whether the input color signal is situated in proximity of the color range for memory color, and in a case wherein the input color signal is not situated in proximity of the color range for memory color, tetrahedrons formed by connecting a first line, a second line and the end points of the first and second lines with straight lines are defined, one of the tetrahedrons having the input color signal situated therein is identified, and

the color material signal is obtained by performing interpolation on the identified tetrahedron. On the other hand, In a case wherein the input color signal is situated in proximity of the color range for memory color, a tetrahedron formed by connecting the first line, a second line, a third line, and additional lines connecting the end points of the first, second and third lines is defined, and the color material signal is obtained by interpolation according to the first, second and third lines forming the tetrahedron. Each of independent claims 32 and 46 as amended addresses such features, as well as additional features.

In the improved approach mentioned above, the method of forming tetrahedrons is switched on whether an input color signal is situated in the proximity of a color range for memory color. In either case interpolation can be satisfactorily performed with relative ease by simple calculation. See, for example, paragraphs [0180] through [0188] of the application.

The cited references do not disclose or suggest a method for converting an input color signal into a color material signal including (a) defining a plurality of tetrahedrons, each being formed by connecting the first line, a corresponding one of the plurality of second lines, an additional line connecting the first and second end points, and additional lines connecting an additional point with the starting point, with the first end point and with the second end point of the corresponding second line, respectively, identifying one of the tetrahedrons having the input color signal situated therein and obtaining the color material signal by performing interpolation on the identified tetrahedron, *if the input color signal is not substantially within a color range of memory color*, and (b) defining a tetrahedron formed by the first line, one of the second lines, one of the third lines, and other lines connecting the third end point of the one of the third lines with the second end point of the one of the second lines, and connecting the first end point with the third end point of the one of the third lines and with the second end point of the one of the

second lines, respectively, obtaining the color material signal by interpolation according to the first, second, and third lines forming the tetrahedron, *if the input color signal is substantially within the color range of memory color*, as provided by the subject matter of claim 32 of the present application. Independent claim 46 is patentably distinct from the cited art for at least similar reasons.

Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claims 32 and 46, and the claims depending therefrom, are patentable over the cited art.

In view of the remarks hereinabove, Applicant submits that the application is now in condition for allowance. Accordingly, Applicant earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Patent Office is hereby authorized to charge any fees that are required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,

  
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